



Feasibility Study for a Quality Ranking of Democracies

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References

Supplementary Papers:

1. Gábor Tóka, Toma Burean and Andrija Henjak: "The Means and Feasibility of Measuring Recent Advances Towards Political Democracy on a Global Scale" (70 ps.)
2. Christian Schaller: "Indicators and Criteria for Democracy and Quality of Democracy" (45 ps.)
3. Karin Liebhart: "Data, Criteria and Indicators for Describing and Analysing Data the Democratic Quality of Political Systems: Focusing on the Gender Dimension" (40 ps.)
4. András Bozóki and Borbála Kriza: "Women and Democracy: Indicators for Measuring Gender Inequalities and Women's Empowerment" (13 ps.)
5. András Bozóki: "Faces of Democracy and Aspects of Human Development: Some Concepts for the Study of the Quality of Democracy" (12 ps.)

Introduction

The history of the present project began in 2000/2001, when we were approached by Christa Pözlbauer, Executive Director of the Association for the Development and Advancement of the Global Democracy Award (<http://www.global-democracy-award.org>). She entrusted us with the task of developing a scientific model that would make it possible to measure the progress of democracies on a global scale. The purpose of the model would be to serve as the basis for the biannual presentation of the Global Democracy Award. The Award would honor the country that made the most significant progress towards democracy.

This represented a great challenge indeed. What follows here is a feasibility study for the global quality ranking of democracies. We offer an elaboration of conceptual and methodological issues and conclude with the discussion of implementation procedures. During the whole period of developing of the present feasibility study, we tried to produce a model that is as transparent as possible. The reader will decide how successful we were.

The key question is how we could measure the change of quality of democracy in a way that can produce a global ranking. By comparing the ranking results of different years, it would be possible to observe whether the position of a specific country (the quality of the democratic system in that country) improves or not. On the basis of the present model, such a ranking procedure could be possible.

The model in the present feasibility study may be labeled a "comprehensive model." According to our approach, the concept of quality of a democracy is understood as the overall quality of democratic state and society. Therefore, we tried to develop a comprehensive model that recognizes political democratization in the context of other areas of society and power. This may be not the only possibility to envision the road to the quality ranking of democracies.

Competing models, based on different theoretical considerations, could offer different conceptualizations and corresponding methodological procedures. A major alternative to the present approach may be labeled the "minimalist model". This would limit the investigation to politics strictly understood: political rights, liberties and other variables within the political system. An elaborate version of the minimalist model may be found in the paper of Gábor Tóka et al. That paper, with four others, were prepared as background papers, and are supplemented to the present feasibility study.

We would like to thank Christa Pözlbauer and Sándor Hasenöhrli (both at the Association for the Development and Advancement of the Global Democracy Award) for their initiative and support; our colleagues, Professors András Bozóki and Gábor Tóka (both at the Department of Political Science, Central European University) for their extremely valuable collaboration and the stimulating discussions; Christian Schaller and Karin Liebhart (both at AGORA, the Democracy Research Section of the Austrian Political Science Association, ÖGPW), as well as Borbála Kriza (former MA student at Central European University), for their highly valuable contributions in the background papers (see the supplementary papers in the appendices).

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Part I.

The Quality Ranking of Democracies

1. The Key Research Question

The key research question can be defined as follows: how can we *measure the progress of quality of democracies over time, based on indicators, and how can we produce a global ranking of the quality of democracies*. Thus, measuring in this context implies developing a ranking for as many democratic countries as possible. By comparing the ranking results of different years, it will be possible to demonstrate whether the ranking position of specific countries (the quality of the democratic system in a particular country) improves or falls back. In this project, for every year, where empirical data are available, such a ranking procedure should be carried out.

The specific demands of the research project are:

1. Global Range of Democracies. The maximum number of democracies (perhaps even “semi-democracies”) should be covered: this comes close to a truly global ranking. Countries could be defined “semi-democracies” if they fall into the category of “partly free”, as defined by Freedom House: the rating spectrum for semi-democracies might extend between 4 and 4.5, or 4 and 5, respectively (see Freedom House 2001a, 653-661).
2. Indicator-based Ranking. In conceptual and methodological terms, the ranking should be based primarily on indicators.
3. Focus on Existing Indicators and Data Sets. For this ranking project, no new primary, i.e. data-based indicators will be created. The ranking should rely on already existing indicators and data sets, although new (“meta-level”) indicators could be derived from currently available indicators and data.
4. A Comprehensive Model. *The concept of “quality of a democracy” is understood broadly in the sense of the “overall quality of democratic state and society”*. In that respect our interest is to develop and to propose for discussion a comprehensive model that recognizes political democratization as related to other conceptual dimensions of society and power. In this model, the following dimensions will be addressed and covered empirically through indicators: politics, gender, economy, knowledge, health, and the environment.
5. Specific and Unique Conceptual and Methodological Approach. Several studies were or are carried out that want to “measure” democracy, or focus on conceptually

challenging aspects of democracy measurement.¹ It should be emphasized that the conceptual and methodological model for a global quality ranking of democracies, as presented here, *represents a specific and unique approach* that has not been suggested or attempted until now. However, our comprehensive model partially recognizes these other studies and even incorporates them and refers to several of these as crucial references: e.g., the freedom ranking by Freedom House (2001a and 2002) and the corruption ranking of Transparency International (Transparency International 2001a and 2001b).

2. Conceptual and Methodological Framework: The Global Ranking Formula

For elaborating a conceptual and methodological framework for the global quality ranking of democracies, the following steps could be taken.

1. Dimensions. First, one should define a specific set of conceptual dimensions. From a systemic (or systems theoretical) perspective, these dimensions could be conceptualized as “systems” or “sub-systems” of a society. However, from a methodological viewpoint, one would preferably speak of dimensions.
2. Indicators. As the second step, one should define a specific set of indicators that are specifically assigned to each dimension. If we want a ranking of democracies as a result, indicators should be quantitative, to ensure measurable values as outcome. The calculated value of all indicators within one dimension should express the value of the particular dimension within the overall ranking formula.
3. Prerequisites / Input / Output of Democracy. When measuring the quality of democracy, in principle all dimensions and indicators appear appropriate that can be defined as *prerequisite and/or input and/or output* of a democratic society. Depending on the particular intellectual point of departure, or the specific theoretical understanding of democracy, there can be disagreement over whether a specific indicator may be judged as a prerequisite, input or output of a democratic society. Perhaps the same indicator (or dimension) may fall also in two or all three of these categories. As long as there is consensus that a specific indicator certainly represents *at least a prerequisite for or input or output* of a democracy, it is reasonable to refer to that indicator for the proposed ranking procedure. Furthermore, it may be plausible to propose a relationship (or process) in which output supports or improves the prerequisites for as well as the input into a democratic society over time in a circular way.²
4. Output Indicators and Government Policy. *It is commonly accepted that the output performance (the*

¹) See, for example, Abromeit 2001; Campbell et al. 1996; Campbell/Schaller 2002; Beetham 1993; Beetham 1994; Beetham et al. 2002; Dahl 1998; Held et al. 1999; Inkeles 1993; Lijphart 1999; Schmidt 2000; and Weidenfeld 2001.

²) The analysis of interaction between output indicators on the one hand, and indicators for prerequisites and input on the other, again depends on the conceptual framework or the underlying theoretical premises.

output indicators) of a society also, at least indirectly, reflect politics and the policy performance of governments of democratic societies. For example, there exists no macro-economic performance independently from politics, since the political and economic systems continuously and mutually interfere. Thus, comparing output indicators of societies represents one possible approach for evaluating the effectiveness of government policies. And government policy effectiveness is clearly linked to the concept of the quality of a democracy.³

5. Dimension/Indicator Matrix. In abstract terms, a formalized dimension/indicator matrix is the result of these procedures (see Figure 1).

Figure 1

Conceptual and Methodological Framework for a Global Quality Ranking of Democracies

Dimensions:	Indicators:	Possible Indicator Characteristics:
Dimension A	← Indicator A1	p and/or i and/or o: p,i,o.
	← Indicator A2	p and/or i and/or o: p,i,o.
	← Indicator A3	p and/or i and/or o: p,i,o.
	← Indicator A4	p and/or i and/or o: p,i,o.
	
	← Indicator An	p and/or i and/or o: p,i,o.
Dimension B	← Indicator B1	p and/or i and/or o: p,i,o.
	
	← Indicator Bn	p and/or i and/or o: p,i,o.
Dimension C	← Indicator C1	p and/or i and/or o: p,i,o.
	
	← Indicator Cn	p and/or i and/or o: p,i,o.
.		
.		
.		
.		
.		
Dimension N	← Indicator Nn	p and/or i and/or o: p,i,o.
Possible Indicator Characteristics:		p: Prerequisite Indicator of Democracy; i: Input Indicator of Democracy; o: Output Indicator of Democracy.

Source: Conceptualization by David Campbell.

6. Dimensions and Indicators as Criteria for Quality Evaluation. The *quality of the democracy* of each country – to be covered – can be evaluated on the basis of the empirical information contained by the indicators. (In turn, indicators are specifically assigned to the conceptual dimensions.) On the basis of indicators, a *global quality ranking of all democracies may be produced for each selected year*.
7. Minimizing Ideological Bias in the Indicator Selection. One main problem for indicator selection is that a specific indicator group might lean towards or favor a specific political ideology or even partisan political position. However, one does not want to measure how “left” or how “right” (liberal or conservative) a country (in terms of public opinion, government, or policies) is,

but the quality of its democracy. Thus the indicators should be – as much as possible – “trans-ideological”. One possibility for realizing this goal is to avoid measuring the degree of “leftness” or “rightness” (conservatism) of a society, but instead judging and/or measuring the *prerequisites*, the *input* and the *output* of a democratic society.⁴ Of course, one must admit that even such a meta-level approach probably could not be totally free or independent of ideological premises. One should also note that a focus on democracy and democratization itself also implies a distinct value judgment.

8. Minimizing Cultural Bias in the Indicator Selection. Besides the problem of “ideological bias”, there also exists the potential for a “cultural bias”. Thus the indicator selection must be sensitive for not treating different cultures unfairly. In that respect a need for a “trans-cultural” (in addition to the “trans-ideological”) indicator selection can be stated. Ideally speaking, this implies that the indicators refer to “values” that address different cultures. Such an approach is reinforced by the understanding that the (basic) human rights are “universal” and thus cut across the specific cultures (and the specific countries).⁵ Therefore, recognizing and emphasizing the universality of human rights and of basic principles of democracy (such as “freedom” and “equality”), clearly supports a trans-cultural procedure.
9. Changes in the Global Quality Ranking of Democracies. Comparing the global quality ranking of democracies of different years allows the selection and the analysis of the performance of those countries that improved their ranking positions. Moreover, it also makes possible the selection of those democracies that achieved the “greatest” ranking improvement.

3. The Dimensions

The following conceptual structure of dimensions is proposed for the global ranking procedure of the quality of democracies:

1. Politics (political system);
2. Gender (gender equality);
3. Economy (economic system);
4. Knowledge [knowledge-based information society, education and research (R&D)];⁶

⁴) Measuring, e.g., primarily the extent of a welfare system might determine a specific result, for instance favoring European countries and outpacing the U.S. In this respect it appears more reasonable to measure or to focus on general output (and prerequisites) indicators, such as life expectancy; literacy; and educational data.

⁵) Replying to the question “Are human rights universal?”, Beetham and Boyle (1995, 92-93) offer a straightforward answer: “Yes, the international standards address common human needs and capacities of the individual everywhere in the world. ...The Universal Declaration of Human Rights also speaks of the individual’s duties to his or her community. It asserts that it is only in community with others that an individual’s free and full development of personality is possible. The notion of human rights nevertheless begins with the belief in the unique worth of every individual human person”.

⁶) R&D means research and experimental development.

³) Concerning theories with regard to public policy, see Parsons 2001.

5. Health (health status and health system);
6. Environment (environmental sustainability).

There are specific reasons and deeply rooted, historically based arguments for proposing these six dimensions. It is consensually accepted that politics (the political system) represents the core dimension of democracy and the quality of democracy. Without analyzing and emphasizing the political dimension, it is not possible to arrive at conclusions about the quality of a democracy. This saliency of the political dimension is also captured by our recommended weighting factors (in Chapter 4).

Gender and gender equality should be regarded as crucial indicators for the “justice” of a democracy: the “measurement” of the *opportunities (chances) for individuals* in a society can partially be carried out by measuring gender equality. A high level of gender equality suggests that society offers a crucial (satisfying) degree of equal distribution of opportunities (chances) for individuals who live in that society.

The dimensions of the economy, health and environmental sustainability reflect several aspects of prerequisites, input and output of democracy and help in assessing the performance of a broad range of indicators. A competitively performing economy is sometimes regarded as a necessity for a working democracy,⁷ and expresses a functioning interaction between politics (government) and the economy. The effectiveness of a social policy partly manifests itself in the performance of health indicators. At the same time, it has the advantage of avoiding the trap of measuring or rewarding a certain ideology or ideological profile of parties. Environmental indicators emphasize criteria of sustainability and, more specifically, the long-term effectiveness of a government policy: ignoring the state of the environment would after all endanger societies *per se*. Moreover, overuse of environmental resources may lead to scarcity of these goods. This may contribute to international, regional and ethnic conflicts and even war, which in turn have negative effects on democracy.⁸ In the 21st century, sustainability of societies within the ecosystem of the Earth has a clear effect on democratic governance.

The knowledge dimension should express the “maturity” of a democratic society or how “advanced” society is. Thus, knowledge is not only being understood as supporting the economic performance, but knowledge is also being regarded as a crucial factor for the quality of a democracy. In a society, where a broader range of high-quality knowledge (information) circulates among a high proportion of members of that society, the quality of a democracy is substantially reinforced.⁹

4. Weighting the Dimensions

For the quality ranking of democracies, the following weighting factors may be assigned to the individual dimensions:

1. Politics (political system): 50%;
2. Gender (gender equality): 10%;
3. Economy (economic system): 10%;
4. Knowledge (knowledge-based information society, education and research): 10%;
5. Health (health system): 10%;
6. Environment (environmental sustainability): 10%.

These suggested weighting factors should reflect and take into account the conceptual importance of the different “dimensions” for the global quality ranking of democracies. Since politics (the political system) certainly represents the most important dimension for evaluating a democracy, its weighting factor is defined with salient 50%. Gender equality is also being regarded as a key dimension, because the gender dimension reveals the distribution of “fair chances” (along the gender axis) for individuals in a society. Since our concept of politics is already partially “genderized” through the inclusion of political gender indicators, we decided to weight gender with 10%.¹⁰ The other four dimensions – economy, knowledge, health, and the environment – are symmetrically weighted with 10%, respectively. This should express that each of these four dimensions is considered as equally important for judgments about the quality of a democracy.¹¹ In total, all weighting factors add up to a sum of 100%.¹²

5. Specific Indicators

Based on this six-fold typology of dimensions, the following specific indicator assignment to the specific dimensions is proposed. The listed indicators qualify as *prerequisites and/or input and/or output* of democracies, implying that they offer proper characteristics for the ranking procedure. Furthermore, the proposed indicators also appear appropriate regarding their corresponding empirical data sets that are generally available and comprehensive.¹³

5.1 Indicators for the Political System

(1) Political rights (a scale with seven scores: 1, 2, 3, 4, 5, 6, and 7; 1 represents the highest degree of political rights, and 7 the lowest): the “lower” the values, the “higher” the ranking (source: Freedom House / e.g., “Freedom in the

¹⁰ See our overview of suggested indicators for the political dimension (Chapter 5.1).

¹¹ It could be argued that in the dimensions of knowledge and health, at least indirectly, economic performance is also represented and/or measured (thus knowledge and health become partially “economized”). This may be used as a justification for weighting the (core) dimension of economy only with a factor of 10%.

¹² Concerning the “internal weight” of the indicators “within” each dimension, there exist at least two methodological alternatives: (a) either all indicators are treated equally or (b) the indicators are weighted differently, concerning their importance for the dimension to which they are assigned. We generally follow procedure (a), except a few specific cases where the particular weighting of indicators is argued for.

¹³ In the Chapters 5.1-5.6 a broad range of indicators (coming close to a maximum version) is suggested. After a critical review process, some indicators again could be dropped from the list or replaced by others.

⁷ See the discussion in Beetham/Boyle 1995, 18-20.

⁸ For a detailed discussion of the relationship between environmental scarcity, conflict and war, see Homer-Dixon, 1999.

⁹ See Campbell 1999, 364-366; Gibbons et al. 1994; Nowotny et al. 2001; and OECD 2000a, 2000b and 2001a.

World Country Ratings 1972-73 to 2000-01" / since 1972).¹⁴

(2) Civil liberties (a scale with seven scores: 1, 2, 3, 4, 5, 6, and 7; 1 represents the highest degree of civil liberties, and 7 the lowest): the "lower" the values, the "higher" the ranking (source: Freedom House / e.g., "Freedom in the World Country Ratings 1972-73 to 2000-01" / since 1972).¹⁵

(3) Press freedom (a scale extending from 0 until 100, with: 0-30 "free"; 31-60 "partly free"; and 61-100 "not free"): the "lower" the values, the "higher" the ranking (source: Freedom House / e.g., "Press Freedom Survey 2001" / since 1979).

(4) Transparency versus corruption / Corruption Perception Index (continuous scale from 10 until 0, with: 10 represents "highly clean" and 0 "highly corrupt"): the "higher" the values, the "higher" the ranking (source: Transparency International / e.g., "Annual Report 2001" and "Global Corruption Report 2001" / 1995-2001).

(5) Change(s) of the head of government within the last ten years ("yes" or "no"): ¹⁶ in case of "yes" 100 points are assigned, in case of "no" no (0) points are assigned (sources: e.g., Banks et al. (1992, 2000, 2002):¹⁷ "Political Handbook of the World" (series since 1927) / e.g., Koole and Katz (2000): "Political Data in 1999" (series since 1991) / e.g., CIA: "The World Factbook" (series since 1975)).¹⁸

(6) Partial or complete change(s) of government party (government parties) within the last ten years ("yes" or "no"): ¹⁹ in case of "yes" 100 points are assigned, in case of "no" no (0) points are assigned (sources: e.g., Banks et al. (1992, 2000, 2002): "Political Handbook of the World" (series since 1927) / e.g., Koole and Katz (2000): "Political Data in 1999" (series since 1991) / e.g., CIA: "The World Factbook" (series since 1975)).

¹⁴ For the ranking procedure, the following procedure could be applied: countries with a "1" score receive 100 points, countries with a "2" 83.3 points. The sequence would continue with: "3" (66.6 points), "4" (49.9 points), "5" (33.2 points), "6" (16.5 points). For a "7" no (0) points would be assigned.

¹⁵ Focusing on the ranking procedure, the following procedure could be applied: countries with a "1" score receive 100 points, countries with a "2" 83.3 points. The sequence would continue with: "3" (66.6 points), "4" (49.9 points), "5" (33.2 points), "6" (16.5 points). For a "7" no (0) points would be assigned.

¹⁶ A "head of government" could be defined according to the "cabinet definition" as presented by Banks et al. 2000: depending on the system of governance, conventionally the head of government would be either the prime minister (chancellor) or the president.

¹⁷ The democratic character of the change must also be taken into account. Non-democratic changes of the head of government (for instance a coup d'état) qualify only as a "no".

¹⁸ Considering the fact that the answer to the political indicators (5) and (6) only allows a "yes" (100 points) or "no" (0 points), one can propose that the internal weight of these two political indicators within the respective political dimension should be below 25%: their combined weight for the political dimension could be restricted to 15-20%. "Missing information" could be interpreted as a "no", and thus would receive no (0) points.

¹⁹ Banks et al. 2000, for example, usually distinguish between "government party(ies)" (the government coalition) and the "opposition parties". Government parties sometimes are also classified as the "presidential group" or the "presidential party". Thus, Banks. et al. qualify as an excellent source for a global comparative analysis of the patterns of party change of governments.

(7) The duration of months with female head(s) of government within the last ten years: the "higher" the values, the "higher" the ranking (sources: e.g., Banks et al. (1992, 2000, 2002): "Political Handbook of the World" (series since 1927) / e.g., Koole and Katz (2000): "Political Data in 1999" (series since 1991) / e.g., CIA: "The World Factbook" (series since 1975)).²⁰

(8) Average percentage share of female cabinet members during the last ten years: the "higher" the values, the "higher" the ranking (sources: e.g., Banks et al. (1992, 2000, 2002): "Political Handbook of the World" (series since 1927) / e.g., Koole and Katz (2000): "Political Data in 1999" (series since 1991) / e.g., CIA: "The World Factbook" (series since 1975)).

5.2 Indicators for Gender Equality

(1) Employees, agriculture, female (% of economically active population) / compared to employees, agriculture, male (% of economically active population): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(2) Employees, industry, female (% of economically active population) / compared to employees, industry, male (% of economically active population): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(3) Employees, services, female (% of economically active population) / compared to employees, services, male (% of economically active population): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(4) Labor force activity rate, female (% of female population ages 15-64) / compared to labor force activity rate, male (% of male population ages 15-64): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(5) Unemployment, female (% of female labor force) / compared to unemployment, male (% of male labor force): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(6) Primary education, pupils (% female): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(7) School enrollment, secondary, female (% gross) / compared to school enrollment, secondary, male (% gross): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(8) School enrollment, secondary, female (% net) / compared to school enrollment, secondary, male (% net): the

²⁰ It should be noted that by the specific definition of the political indicators (7) and (8) the political dimension is – at least partially – "genderized".

"lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(9) Illiteracy rate, adult female (% of females ages 15 and above) / compared to illiteracy rate, adult male (% of males ages 15 and above): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(10) Life expectancy at birth, female (years) / compared to life expectancy at birth, male (years): the "lower" the difference between "female" and "male", the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

5.3 Indicators for the Economic System

(1) Central government debt, total (% of GDP): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(2) GDP per capita, PPP (current international \$): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(3) GNI per capita, PPP (current international \$): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(4) Overall budget deficit, including grants (% of GDP): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(5) Inflation, consumer prices (annual %): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(6) Food price index (1995 = 100): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(7) Labor force, children 10-14 (% of age group): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(8) Unemployment, total (% of total labor force): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(9) Unemployment, youth total (% of total labor force ages 15-24): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

5.4 Indicators for Knowledge

(1) School enrollment, secondary (% gross): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(2) School enrollment, secondary (% net): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(3) School enrollment, tertiary (% gross): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(4) Pupil-teacher ratio, primary: the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(5) Illiteracy rate, adult total (% of people ages 15 and above): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(6) Daily newspapers (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(7) Telephone mainlines (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(8) Television sets (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(9) Personal computers (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(10) Internet hosts (per 10,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(11) Internet users / internet users divided by "Population, total (per 1,000 people)": the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(12) Mobile phones (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(13) Information and communication technology expenditure (% of GDP): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(14) Research and development expenditure (% of GNI): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(15) Scientists and engineers in R&D (per million people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

5.5 Indicators for Health

(1) Health expenditure per capita, PPP (current international \$): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(2) Health expenditure, private (% of GDP): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(3) Health expenditure, public (% of GDP): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(4) Hospital beds (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(5) Immunization, DPT (% of children under 12 months): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(6) Immunization, measles (% of children under 12 months): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(7) Life expectancy at birth, total (years): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(8) Mortality rate, infant (per 1,000 live births): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(9) Mortality rate, under-5 (per 1,000 live births): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(10) Physicians (medical doctors) (per 1,000 people): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(4) Organic water pollutant (BOD) emissions (kg per day per worker): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(5) Organic water pollutant (BOD) emissions (kg per day): / emissions divided by "Population, total": the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

5.6 Indicators for Environmental Sustainability

(1) Environmental systems [composite index for (a) air quality, (b) water quantity, (c) water quality, (d) biodiversity, (e) land, having very low anthropogenic impact vs. high anthropogenic impact] (source: 2002 Environmental Sustainability Index, 2002).

(2) Reducing stresses [composite index for (a) reducing air pollution, (b) reducing water stress, (c) reducing ecosystem stresses, (d) reducing waste and consumption pressures, (e) reducing population growth] (source: 2002 Environmental Sustainability Index, 2002).

(3) Reducing human vulnerability [composite index for (a) basic human sustenance, and (b) environmental health] (source: 2002 Environmental Sustainability Index, 2002).

(4) Social and institutional capacity [composite index for (a) science and technology, (b) capacity for debate, (c) environmental governance, (d) private sector responsiveness, (e) eco-efficiency] (source: 2002 Environmental Sustainability Index, 2002).

(5) Global stewardship [composite index for (a) participation in international collaborative efforts, (b) greenhouse gas emissions, (c) reducing transboundary environmental pressures] (source: 2002 Environmental Sustainability Index, 2002).

If the Environmental Sustainability Index is not available for consecutive years, the following indicators could be used:

(1) CO₂ emissions, industrial (kg per PPP \$ of GDP): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(2) CO₂ emissions, industrial (metric tons per capita): the "lower" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

(3) GDP per unit of energy use (PPP \$ per kg of oil equivalent): the "higher" the values, the "higher" the ranking (source: World Bank / World Development Indicators 2001 / 1960-1999).

Part II.

Implications for Implementation

6. Global Quality Ranking and/or Country Clusters

By interpreting indicators as prerequisites, input or output of democracy (a democratically governed society), the problem of ideological bias (or “ideological subjectivity”) of indicators is minimized. At the same time, however, a new problem arises: How can one avoid that the quality ranking of democracies – according to the presented method – becomes too much determined by the degree of socio-economic and knowledge-based advancement? This leads to the following question: *Should we compare all countries directly, or should we formulate specific country clusters for comparison within groups?*

A possible solution is to define different *country clusters*, and then to rank for each indicator the countries within that country cluster. One main advantage of country clusters is that countries are compared with “comparable” countries, i.e. more similar countries. Similarity can refer to geography, culture, history, and socio-economic status of development. Such an approach offers at least two opportunities:

1. To analyze ranking positions and changes in ranking positions of the countries within a specific country cluster.
2. As ranking positions (according to our proposed methodology) are also expressed by quantitative “ranking points”,²¹ this offers the opportunity of comparing the ranking positions – and changes of ranking positions – of countries across specific or all clusters.

Which country clusters should be defined? The definition of country clusters can follow different criteria. One example could be geographical references; another set of criteria could focus on functional aspects (such as socio-economic or knowledge-based advancement). Cultural similarity may also qualify as a “functional” criterion in that understanding. Geography, functionality and culture can overlap; take, for example, the “Islamic world” of North Africa and the Middle East.

Examples for possible country clusters for the indicator-based ranking procedures are:

1. According to the geographical logic: Western Europe (or the European Union/EU); North America; Latin America; Sub-Saharan Africa; etc.
2. According to the functional logic: the distinction between OECD²² and non-OECD countries.

To combine the advantages of country clusters and, at the same time, to reflect the need for a comprehensive and global quality ranking of democracies, a practical solution could lie in a procedure in which *every country is automatically assigned to the “whole world” (the global ranking) as well as to one or two other country clusters*. As a

possible outcome, the following three country clusters might emerge: (I) the “whole world”; (II) OECD and non-OECD countries; (III) and some specific geographical patterning of the world.

However, it should be noted that it is also legitimate not to apply the method of country clusters and to produce only one global ranking for all democracies. The idea of the universality of human rights, for example, may be used as a crucial argument for only one, global, ranking, by *always* comparing *all democracies*.

7. Implementation Procedures and Methodological Details

The implementation of the formula for the global ranking of the quality of democracies would proceed in the following steps:

1. Selection of Countries. A specific set of countries must be predefined for the ranking procedure. There should be a minimum threshold: for example, countries qualified as “not free” by Freedom House are excluded from the ranking at the beginning.²³ Thus the great value of freedom ratings of Freedom House would be underscored.
2. Dimensions. A specific set of dimensions is defined. We propose six dimensions: *politics* (political system); *economy* (economic system); *knowledge* (knowledge-based information society, education and research); *health* (health system); *gender* (gender equality); and *environment* (sustainability).
3. Assignment of Specific Indicators to Individual Dimensions. For each dimension a set of indicators is defined. Indicators are empirically based (represent quantitative data), and should qualify by their content at least as a *prerequisite and/or input and/or output* of a democracy. The selection of indicators should be carried out *broadly*, to avoid that the specific nature of a few indicators might determine (or bias) a result too much.²⁴ Furthermore, emphasis should be placed on indicators that are available for most countries: this implies that some sophisticated indicators (for example some economic indicators²⁵ or several R&D indicators), which already exist for economically advanced countries (e.g., the OECD member countries), cannot be applied. The interest in a global quality ranking of democracies certainly implies restrictions with regard to the availability and applicability of indicators.
4. Selection of Years and Time Periods. Years must be defined, for which a quality ranking should be carried out. To compare and to evaluate possible

²³) The consequence of this would be that the quality ranking of countries is limited to those countries that are covered by Freedom House (see, for example, Freedom House 2001a and 2002). Perhaps, for statistical reasons, for some of the “not free” countries – e.g., those falling into the value range between 5.5 and 6 – also indicator information should be collected. This would ensure that possible future improvements of the quality of democracy could be monitored more easily (however, the plausibility of this methodological issue would still have to be considered).

²⁴) Some specific indicators might favor one-sidedly a certain ideology or ideology-based evaluation of performance of a democracy. This also calls for the inclusion of several indicators.

²⁵) In that respect see OECD 2000a and 2000b.

²¹) For more details, see Paragraph 5 in Chapter 7.

²²) OECD: Organization for Economic Co-Operation and Development.

improvements in the global quality ranking of democracies, it is necessary to compare several years, however at least two different years. Values for a "specific year" should in fact be calculated as average values for a temporal duration (more than one year). For example, one should calculate the averages for the *specific year and the last year before or the specific year and the last two years before*. Such a procedure would imply that values for, e.g., "2002" would represent a combined average value for the following periods: "2002" plus "2001" or "2002" plus "2001" plus "2000." Such an emphasis on average values might counterbalance possible short-term fluctuations or oscillations, and might reveal mid-term trends, and thus would contribute to the stability of a ranking.²⁶

One should note that the periods for measuring the changes of particular countries' ranking position also correspond with the duration of periods for which averages are calculated. Values and ranking points for a specific year should be used for average calculations only once. For example, if progress in the ranking is measured every second year, averages should also be calculated for only two years. In practice, comparison of "2002" and "2000" would actually involve comparison of the average of "2002" plus "2001," with the average of "2000" plus "1999".

5. Actual Ranking and Accreditation of Indicator-based Ranking Points. All selected countries are ranked, *on the basis of the dimensions and the dimension-assigned indicators*, for the selected years. For each indicator the first-ranked country could receive, for example, 100 (100%) "ranking points", and the last-ranked country 0 (0%) points. Thus the scale of ranking points – for each indicator for each year – extends from 0 until 100 (or 0% until 100%). The "natural" distribution of values for each indicator would have to be symmetrically represented by our 0-100 (0-100%) value range. In this way, the "natural distances" between ranking positions are recognized and documented. For equal ranking placements the equal number of ranking points would have to be assigned to the specific countries. Obviously an agreement would have to be reached how to deal with "missing values".²⁷
6. One Global Reference and Different Country Clusters for the Global Quality Ranking of all Democracies. We already discussed the conceptual possibility that *a country could be assigned simultaneously to two or three different country clusters*, implying that for each country cluster then a specific ranking is carried out.²⁸

Possible country groups are: (I) *all countries (global ranking)*; (II) *OECD and non-OECD countries*; (III) and *specific geographical-cultural country clusters*, which would have to be defined, and which could be: Western Europe, North America,²⁹ Latin America, Sub-Saharan Africa, North Africa and the Middle East (the Arab world), etc. (Each country in the world would have to be assigned to one sub-group of this third country cluster.)³⁰

In the context of the specific model presented here, it is recommended to apply the ranking procedure of country clusters, and the global ranking simultaneously. On the one hand, *this allows for regional comparisons (and corresponding democracy advocacy activities)*. On the other hand, *this also implies that all indicators and finally all democratic societies are ranked according to only one global reference system*, demanding that the quality of each democracy is always compared with the qualities of all the other democracies.³¹

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calculation as the direct global ranking results express the ranking positions straightforwardly, and further calculations would relativize the direct results.

²⁹) In this context the two following country clusters could be separated: Western Europe, on the one hand, and then the United States, Canada, Japan, South Korea, Australia, and New Zealand. This would come close of comparing OECD Europe with non-European OECD. Other country clusters could be as already stated in the text.

³⁰) At this point one might add that methodologically it is also possible to carry out a ranking separately for each dimension (for example, gender equality). Such a specific, dimension focused ranking could contribute valuable information to the specific discourses, and democracy advocacy in general.

³¹) This would closely reflect the interests of the whole Global Democracy Award project. Measuring changes in regional rankings could provide excellent opportunities in the particular regions for democracy advocacy and public relations activities related to the Award. At the same time, the global ranking could be utilized directly for selecting the Award winner(s).

²⁶) Additionally, considering average values for more than one year may represent an opportunity for dealing with the problem of some missing values for the most current year(s).

²⁷) One possibility would be to always assign a "0" for missing values. This may be justified by the circumstance that poor data documentation often correlates (coincides) with a performance below the average; for instance in the areas of economic behavior or R&D (see World Bank 2001 and OECD 2002a). However, one should also not "penalize" countries for their lack of data service. Therefore, the other option is to assign to the missing indicator the average value of all other indicators of the particular country.

²⁸) An interesting idea could be that the overall, i.e., global quality ranking position could be calculated as an average value on the basis of these specific country-cluster rankings. We would actually not propose such a

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